Sample Metadata

NOTE: Blue *text is information provided by the Contributor.* Black *text indicates the categories that are prepared and all other information that is extracted from the dataset when the shapefile is created using the ESRI software; the contributor does not have to develop this content*.

```
Identification_Information:
  Citation:
    Citation_Information:
      Originator: Ron Schlorff, California Department of Fish and Game
      Publication_Date: 20050314
      Publication_Time:
      Title: Swainson's Hawk Breeding Territory Database
      Geospatial_Data_Presentation_Form: vector digital data
      Online_Linkage: \\Molib01\BIOS\WorkArea\34-
SwainsonsHawkDB\v1ready\Swainson's Hawk Breeding Territory Database.shp
  Description:
    Abstract:
```

The observation records represent the known historical and recent breeding distribution of Swainson's hawks in California. The majority of records come from in the Central Valley with lesser numbers coming from Siskiyou, Modoc and Lassen counties, and from the Bishop area in Inyo and Mono counties. There are two records from southern California. These data were gathered from 1970 to 1994. Of these, 99.9 percent of the observations were more recent than 1975.

Observations were made mainly by doing road surveys through likely habitat to find flying Swainson's hawks during the breeding season. Some surveys were conducted from boats from the Sacramento River. Once Swainson's hawks were seen, they were watched to determine if they were showing courtship or nesting behavior or would lead observers to nest sites or trees that possibly contained nests which could not be easily seen. Once a Swainson's hawk nest was found in an area, other potential nest sites in the general vicinity were checked to see if the hawks were present but not generally visible.

Observations were made mainly by Department and other agency biologists and volunteer ornithologists and birders. Observation data was compiled and entered into a database by the Bird and Mammal Conservation Program, Wildlife Management Division, in the late 1980's and additional data were added until mid-1995.

WHAT EACH RECORD REPRESENTS:
The database represents Swainson's hawk observations and known nest sites in California. There are fields describing the number and activity of the hawks observed, if nests and/or young were observed, nest tree species, the observation location (township/range/ section and X-Y coordinates), type of habitat surrounding observation location, and who made the observation and when that observation was made.

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    Purpose:
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The database was designed to track the known breeding distribution pattern, history of breeding site occupancy, and trends in land use around nest sites in California. Each unique territory is identified providing the ability to estimate known nest site distribution, potential numbers of nests, and over time, changes in distribution and numbers. The database may be used for development project review where site-specific information and history of occupation could be evaluated to determine how a specific project might impact

the hawks, to design project modifications to avoid conflicts, and to support management planning, monitoring and research.

DATA ASSUMPTIONS AND LIMITATIONS:
Significant general assumptions of the data were: 1) Swainson's hawks found spending time in a specific area during the nesting season could be called a territorial, and 2) a site is a location on the landscape that may be occupied by different Swainson's hawks over time.

KNOWN CAVEATS OF THE DATA:
Caveats include: 1) the accuracy of the point representing the territory in any given year is only as accurate as the legal description of that site provided by the original observer (i.e., if only the section was provided by the observer, then the territory could have been anywhere in the section, or if a quarter section is given, no more accurate than in that quarter section, and so on) and the point representing a territory location could be in a different county than the nest actually was in, 2) where river mile notations are given in the Location field, points represented on the map may not be accurate because the river miles were established years ago with the river often in a different channel, and interpretation of river mile points may vary among observers and among data handlers trying to assign point coordinates to represent a given observation, 3) observers could misidentified which territory breeding birds should be assigned to in subsequent years following the first year in which the territory was described, especially in areas where nesting territories were clumped 4) some observations are combined to represent a number of observations in a single year in one record, and 5) some valid observations with incomplete date are included.

    Supplemental_Information:
The base data contains 1856 records including a number that note changes in territory identification codes and that do not have specific enough locations to provide a reasonable representation of where the observation was made. There are 1814 observation records with adequate enough descriptions to produce a point locations for each presented here. They represent approximately 808 territories in 24 counties. There were multiple-year sightings at numerous territories.

SPATIAL DATA CAPTURE METHODS:
Original location information was gathered using legal descriptions (township, range, and section information). Some early observations are based on directions/distances from a known landmark and converted to a legal description. In order get coordinates to plot, the legal descriptions were converted to X-Y coordinates using NAD 83 datum. This was done by creating a conversion program that converted the section center, the center of a quarter section, or the center of a sixteenth section for each section in California to an X-Y coordinate pair. This accounts for the coordinates of about 1746 of the observations. Coordinates could be determined for another 68 sites by using location descriptions and the River Mile marks along the Sacramento River noted by observers.

NATIVE DATA FORMAT:
In error checking this data to create a BIOS layer, the base data format was transformed from a single table Visual dBASE file to both an Excel file and an Access database.
  Time_Period_of_Content:
    Time_Period_Information:

```
      Range_of_Dates/Times:
         Beginning_Date: 1977
         Ending_Date: 1994
      Currentness_Reference: ground condition
    Status:
      Progress: Complete
      Maintenance_and_Update_Frequency: None planned
    Spatial_Domain:
      Bounding_Coordinates:
         West_Bounding_Coordinate: -122.562297
         East_Bounding_Coordinate: -114.555438
         North_Bounding_Coordinate: 41.987262
         South_Bounding_Coordinate: 34.579100
    Keywords:
      Theme:
         Theme_Keyword: Swainson's hawk
         Theme_Keyword: Buteo swainsoni
         Theme_Keyword: nests
         Theme_Keyword: observations
         Theme_Keyword: reproductive sites
         Theme_Keyword: territories
      Place:
         Place_Keyword: Central Valley
         Place_Keyword: Great Basin
         Place_Keyword: Modoc
         Place_Keyword: Siskiyou
         Place_Keyword: Inyo
         Place_Keyword: Owens Valley
         Place_Keyword: desert
         Place_Keyword: statewide
         Place_Keyword: California
         Place_Keyword: northern California
    Access_Constraints: No restrictions
    Use_Constraints: Recognition that the dataset was created and provided by the
California Department of Fish and Game.
    Point_of_Contact:
      Contact_Information:
         Contact_Person_Primary:
            Contact_Person: Ron Schlorff
            Contact_Organization: California Department of Fish and Game, Habitat
Conservation Division, Resource Assessment Program
         Contact_Position: Associate Wildlife Biologist
         Contact_Address:
            Address_Type: mailing and physical address
            Address: 1416 Ninth Street
            City: Sacramento
            State_or_Province: CA
            Postal_Code: 95814
         Contact_Voice_Telephone: (916) 654-4262
         Contact_Electronic_Mail_Address: rschlorff@dfg.ca.gov
    Native_Data_Set_Environment: Microsoft Windows 2000 Version 5.0 (Build 2195)
Service Pack 4; ESRI ArcCatalog 8.3.0.800
Data_Quality_Information:
    Lineage:
      Process_Step:
         Process_Description:
         Source_Used_Citation_Abbreviation: C:\BAlbersXYSwHaBrTeDb
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    Process_Step:
      Process_Description:
      Source_Used_Citation_Abbreviation: \\Molib01\BIOS\WorkArea\34-
SwainsonsHawkDB\v1\BAlbersXYSwHaBrTeDb
Spatial_Data_Organization_Information:
  Direct_Spatial_Reference_Method: Vector
  Point_and_Vector_Object_Information:
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type: Entity point
      Point_and_Vector_Object_Count: 1814
Spatial_Reference_Information:
  Horizontal_Coordinate_System_Definition:
    Planar:
      Map_Projection:
        Map_Projection_Name: Albers Conical Equal Area
        Albers_Conical_Equal_Area:

          Standard_Parallel: 34.000000
          Standard_Parallel: 40.500000
          Longitude_of_Central_Meridian: -120.000000
          Latitude_of_Projection_Origin: 0.000000
          False_Easting: 0.000000
          False_Northing: -4000000.000000
      Planar_Coordinate_Information:
        Planar_Coordinate_Encoding_Method: coordinate pair
        Coordinate_Representation:
          Abscissa_Resolution: 0.002048
          Ordinate_Resolution: 0.002048
        Planar_Distance_Units: meters
    Geodetic_Model:
      Horizontal_Datum_Name: North American Datum of 1983
      Ellipsoid_Name: Geodetic Reference System 80
      Semi-major_Axis: 6378137.000000
      Denominator_of_Flattening_Ratio: 298.257222
Entity_and_Attribute_Information:
  Detailed_Description:
    Entity_Type:
      Entity_Type_Label: Swainson's Hawk Breeding Territory Database
    Attribute:
      Attribute_Label: FID
      Attribute_Definition: Internal feature number.
      Attribute_Definition_Source: ESRI
      Attribute_Domain_Values:
        Unrepresentable_Domain: Sequential unique whole numbers that are
automatically generated.
    Attribute:
      Attribute_Label: Shape
      Attribute_Definition: Feature geometry.
      Attribute_Definition_Source: ESRI
      Attribute_Domain_Values:
        Unrepresentable_Domain: Coordinates defining the features.
    Attribute:
      Attribute_Label: TERRNO
      Attribute_Definition: This unique identifier represents the geographical
location of a sighting or breeding occurrence.  An effort was made to assign the
same territory number (TERRNO) to multiple observations that indicate the same
breeding or foraging territory.
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Attribute_Domain_Values:
  Enumerated_Domain:
    Enumerated_Domain_Value: BU
    Enumerated_Domain_Value_Definition: Butte County
  Enumerated_Domain:
    Enumerated_Domain_Value: CO
    Enumerated_Domain_Value_Definition: Colusa County
  Enumerated_Domain:
    Enumerated_Domain_Value: FR
    Enumerated_Domain_Value_Definition: Fresno County
  Enumerated_Domain:
    Enumerated_Domain_Value: GL
    Enumerated_Domain_Value_Definition: Glenn County
  Enumerated_Domain:
    Enumerated_Domain_Value: IN
    Enumerated_Domain_Value_Definition: Inyo County
  Enumerated_Domain:
    Enumerated_Domain_Value: KE
    Enumerated_Domain_Value_Definition: Kern County
  Enumerated_Domain:
    Enumerated_Domain_Value: LA
    Enumerated_Domain_Value_Definition: Los Angeles County
  Enumerated_Domain:
    Enumerated_Domain_Value: LS
    Enumerated_Domain_Value_Definition: Lassen County
  Enumerated_Domain:
    Enumerated_Domain_Value: MA
    Enumerated_Domain_Value_Definition: Madera County
  Enumerated_Domain:
    Enumerated_Domain_Value: MC
    Enumerated_Domain_Value_Definition: Modoc County
  Enumerated_Domain:
    Enumerated_Domain_Value: ME
    Enumerated_Domain_Value_Definition: Merced County
  Enumerated_Domain:
    Enumerated_Domain_Value: MN
    Enumerated_Domain_Value_Definition: Mono County
  Enumerated_Domain:
    Enumerated_Domain_Value: PC
    Enumerated_Domain_Value_Definition: Placer County
  Enumerated_Domain:
    Enumerated_Domain_Value: PL
    Enumerated_Domain_Value_Definition: Plumas County
  Enumerated_Domain:
    Enumerated_Domain_Value: SA
    Enumerated_Domain_Value_Definition: Sacramento County
  Enumerated_Domain:
    Enumerated_Domain_Value: SB
    Enumerated_Domain_Value_Definition: San Bernardino County
  Enumerated_Domain:
    Enumerated_Domain_Value: SJ
    Enumerated_Domain_Value_Definition: San Joaquin County
  Enumerated_Domain:
    Enumerated_Domain_Value: SK
    Enumerated_Domain_Value_Definition: Siskiyou County
  Enumerated_Domain:
    Enumerated_Domain_Value: SO
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            Enumerated_Domain_Value_Definition: Solano County
         Enumerated_Domain:
           Enumerated_Domain_Value: ST
           Enumerated_Domain_Value_Definition: Stanislaus County
         Enumerated_Domain:
           Enumerated_Domain_Value: SU
           Enumerated_Domain_Value_Definition: Sutter County
         Enumerated_Domain:
           Enumerated_Domain_Value: TE
           Enumerated_Domain_Value_Definition: Tehama County
         Enumerated_Domain:
           Enumerated_Domain_Value: TU
           Enumerated_Domain_Value_Definition: Tulare County
         Enumerated_Domain:
           Enumerated_Domain_Value: YO
           Enumerated_Domain_Value_Definition: Yolo County
     Attribute:
       Attribute_Label: OBSDATE
       Attribute_Definition: Date that the observation was made.
     Attribute:
       Attribute_Label: OBSERVER
       Attribute_Definition: Observer(s)'s last name
     Attribute:
       Attribute_Label: NUMACT
       Attribute_Definition: Provides information on the number of Swainson's
hawks observed except does not include the number of eggs, nestlings, or
fledglings.
       Attribute_Domain_Values:
         Enumerated_Domain:
           Enumerated_Domain_Value: F
           Enumerated_Domain_Value_Definition: Flying
         Enumerated_Domain:
           Enumerated_Domain_Value: N
           Enumerated_Domain_Value_Definition: Nesting
         Enumerated_Domain:
           Enumerated_Domain_Value: P
           Enumerated_Domain_Value_Definition: Perched
         Enumerated_Domain:
           Enumerated_Domain_Value: S
           Enumerated_Domain_Value_Definition: Soaring
         Enumerated_Domain:
           Enumerated_Domain_Value: NO
           Enumerated_Domain_Value_Definition: No Swainson's hawk activity was
observed.
         Enumerated_Domain:
           Enumerated_Domain_Value: YES
           Enumerated_Domain_Value_Definition: There was at least one Swainson's
hawk observed but the observer did not provide the number of hawks nor their
activity.
     Attribute:
       Attribute_Label: NESTKNOWN
       Attribute_Definition: A "Y" indicates that a nest was seen and verified.
A blank field indicates either the nest was not found or was not searched for.
     Attribute:
       Attribute_Label: NUMADULTS
       Attribute_Definition: The number of adults seen in the nesting territory.
     Attribute:
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    Attribute_Label: NUMYOY
    Attribute_Definition: Number of individuals counted that was hatched in
the observation year.  Here relates to the number of young of the year seen at
on near the nest.  Number is accompanied by the age of the young.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: EG
        Enumerated_Domain_Value_Definition: Egg
      Enumerated_Domain:
        Enumerated_Domain_Value: FL
        Enumerated_Domain_Value_Definition: Fledgling
      Enumerated_Domain:
        Enumerated_Domain_Value: YG
        Enumerated_Domain_Value_Definition: Young
  Attribute:
    Attribute_Label: LOCATION
    Attribute_Definition: This is a very short text description of where the
nesting territory is located.  Usually uses names from USGS quad in description.
  Attribute:
    Attribute_Label: NESTTREE
    Attribute_Definition: Minimally provides the species of the nest tree.
Also, can include the height of the nest and the height of the tree (e.g., CW,
30 up 35' = nest 30' up in a 35' cottonwood).
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: ASH
        Enumerated_Domain_Value_Definition: Oregon Ash
      Enumerated_Domain:
        Enumerated_Domain_Value: ALM
        Enumerated_Domain_Value_Definition: Almond
      Enumerated_Domain:
        Enumerated_Domain_Value: BO
        Enumerated_Domain_Value_Definition: Blue Oak
      Enumerated_Domain:
        Enumerated_Domain_Value: CO
        Enumerated_Domain_Value_Definition: Conifer (Deodar Cedar)
      Enumerated_Domain:
        Enumerated_Domain_Value: CW
        Enumerated_Domain_Value_Definition: Cottonwood
      Enumerated_Domain:
        Enumerated_Domain_Value: EL
        Enumerated_Domain_Value_Definition: American Elm
      Enumerated_Domain:
        Enumerated_Domain_Value: EU
        Enumerated_Domain_Value_Definition: Eucalyptus
      Enumerated_Domain:
        Enumerated_Domain_Value: JP
        Enumerated_Domain_Value_Definition: Juniper
      Enumerated_Domain:
        Enumerated_Domain_Value: JS
        Enumerated_Domain_Value_Definition: Joshua Tree
      Enumerated_Domain:
        Enumerated_Domain_Value: LO
        Enumerated_Domain_Value_Definition: Interior Live Oak
      Enumerated_Domain:
        Enumerated_Domain_Value: LT
        Enumerated_Domain_Value_Definition: Locust
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    Enumerated_Domain:
      Enumerated_Domain_Value: O
      Enumerated_Domain_Value_Definition: unspecified Oak
    Enumerated_Domain:
      Enumerated_Domain_Value: PC
      Enumerated_Domain_Value_Definition: Pecan
    Enumerated_Domain:
      Enumerated_Domain_Value: SM
      Enumerated_Domain_Value_Definition: Sycamore
    Enumerated_Domain:
      Enumerated_Domain_Value: VO
      Enumerated_Domain_Value_Definition: Valley Oak
    Enumerated_Domain:
      Enumerated_Domain_Value: WI
      Enumerated_Domain_Value_Definition: Willow
    Enumerated_Domain:
      Enumerated_Domain_Value: WT
      Enumerated_Domain_Value_Definition: Walnut
  Attribute:
    Attribute_Label: HABITAT
    Attribute_Definition: This is a code that represents the habitat(s)
surrounding the nest location.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: A
        Enumerated_Domain_Value_Definition: Agriculture / croplands
      Enumerated_Domain:
        Enumerated_Domain_Value: CS
        Enumerated_Domain_Value_Definition: Creosote scrub
      Enumerated_Domain:
        Enumerated_Domain_Value: D
        Enumerated_Domain_Value_Definition: Developed / urban / residential
      Enumerated_Domain:
        Enumerated_Domain_Value: E
        Enumerated_Domain_Value_Definition: Eucalyptus
      Enumerated_Domain:
        Enumerated_Domain_Value: G
        Enumerated_Domain_Value_Definition: Grasslands / pasture
      Enumerated_Domain:
        Enumerated_Domain_Value: GBD
        Enumerated_Domain_Value_Definition: Great Basin Desert
      Enumerated_Domain:
        Enumerated_Domain_Value: J
        Enumerated_Domain_Value_Definition: Juniper
      Enumerated_Domain:
        Enumerated_Domain_Value: J-S
        Enumerated_Domain_Value_Definition: Juniper sage
      Enumerated_Domain:
        Enumerated_Domain_Value: MDS
        Enumerated_Domain_Value_Definition: Mixed desert scrub
      Enumerated_Domain:
        Enumerated_Domain_Value: O
        Enumerated_Domain_Value_Definition: Oak woodland
      Enumerated_Domain:
        Enumerated_Domain_Value: OD
        Enumerated_Domain_Value_Definition: Orchard
      Enumerated_Domain:
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        Enumerated_Domain_Value: P
        Enumerated_Domain_Value_Definition: Pasture
      Enumerated_Domain:
        Enumerated_Domain_Value: R
        Enumerated_Domain_Value_Definition: Riparian
      Enumerated_Domain:
        Enumerated_Domain_Value: S
        Enumerated_Domain_Value_Definition: Sycamore

      Enumerated_Domain:
        Enumerated_Domain_Value: V
        Enumerated_Domain_Value_Definition: Vineyard
      Enumerated_Domain:
        Enumerated_Domain_Value: VP
        Enumerated_Domain_Value_Definition: Vernal pool
      Enumerated_Domain:
        Enumerated_Domain_Value: W
        Enumerated_Domain_Value_Definition: Wildlife area
  Attribute:
    Attribute_Label: MERIDIAN
    Attribute_Definition: The name of the public land survey grid system where
the observation is located.
    Attribute_Domain_Values:
      Enumerated_Domain:
        Enumerated_Domain_Value: M
        Enumerated_Domain_Value_Definition: Mt. Diablo
      Enumerated_Domain:
        Enumerated_Domain_Value: B
        Enumerated_Domain_Value_Definition: San Bernardino
  Attribute:
    Attribute_Label: TOWNSHIP
    Attribute_Definition: Township where the observation is located.
  Attribute:
    Attribute_Label: RANGE
    Attribute_Definition: Range where the observation is located.
  Attribute:
    Attribute_Label: SECTION
    Attribute_Definition: Section where the observation is located.
  Attribute:
    Attribute_Label: QTRSECTION
    Attribute_Definition: Given if the half section or quarter section has
been determined at the observation location.
  Attribute:
    Attribute_Label: SXTNTHSEC
    Attribute_Definition: Given if the half of the quarter section or
sixteenth section has been determined at the observation location.
  Attribute:
    Attribute_Label: LANDOWNER
    Attribute_Definition: Type of land-owner at the observation location;
includes private lands and private landowners, companies and ranch names, public
utilities, city, county, and state and their agencies, and federal and military
lands.
  Attribute:
    Attribute_Label: XCOORD
    Attribute_Definition: The x coordinate (east-west) using NAD83 datum and
Teale Albers projection.
  Attribute:
```

```
      Attribute_Label: YCOORD
      Attribute_Definition: The y coordinate (north-south) using NAD83 datum and
Teale Albers projection.
   Attribute:
      Attribute_Label: COMMENTS
      Attribute_Definition: Miscellaneous comments about the observation.  The
majority document the color phases (or morphs) of the Swainson's hawks observed.
Abbreviations used include: LT = light phase, MD = medium coloration, DK = dark
phase.
Distribution_Information:
  Resource_Description: Downloadable Data
  Standard_Order_Process:
    Digital_Form:
      Digital_Transfer_Information:
        Transfer_Size: 0.761
Metadata_Reference_Information:
  Metadata_Date: 20050314
  Metadata_Contact:
   Contact_Information:
      Contact_Organization_Primary:
      Contact_Organization: California Department of Fish and Game, Habitat
Conservation Division, Resource Assessment Program
      Contact_Person: Ron Schlorff
      Contact_Address:
        Address_Type: mailing and physical address
        Address: 1416 Ninth Street
        City: Sacramento
        State_or_Province: California
        Postal_Code: 95814
      Contact_Voice_Telephone: (916) 654-4262
      Contact_Electronic_Mail_Address: rschlorff@dfg.ca.gov
  Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
  Metadata_Standard_Version: FGDC-STD-001-1998
  Metadata_Time_Convention: local time
  Metadata_Extensions:
    Online_Linkage: http://www.esri.com/metadata/esriprof80.html
    Profile_Name: ESRI Metadata Profile
```